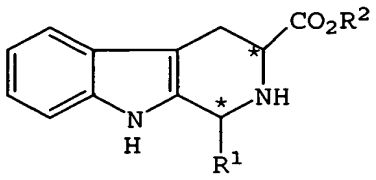
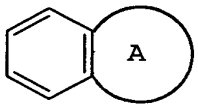
IN THE CLAIMS:

1. (Currently amended) A method of preparing a desired diastereomer of a tetrahydro-β-carboline having a formula



wherein R^1 represents an optionally substituted monocyclic aromatic ring selected from benzene, thiophene, furan, and pyridine, or an optionally substituted bicyclic ring



attached to the rest of the molecule via one of the benzene ring carbon atoms and wherein the fused ring A is a 5- or 6-membered ring which may be saturated or partially or fully unsaturated and comprises carbon atoms and optionally one or two heteroatoms elected from oxygen, sulfur, and nitrogen; and R^2 represents C_{1-6}alkyl, comprising the steps of:

(a) providing a tryptophan esterified using an alcohol having a formula R^2OH; and

(b) reacting the tryptophan ester of step (a) with an aldehyde having a formula R^1CHO to provide the desired diastereomer and an undesired diastereomer of the tetrahydro-β-carboline, wherein the reaction is performed in a solvent in which the desired diastereo-

mer is insoluble and the undesired diastereomer is soluble.

2. (Original) The method of claim 1 wherein the desired diastereomer is insoluble in the solvent of step (b) at reflux temperature or lower, and the undesired diastereomer is soluble in the solvent of step (b) at reflux temperature or lower.

3. (Original) The method of claim 1 wherein the alcohol R^2OH is selected from the group consisting of methanol, ethanol, isopropyl alcohol, n-propyl alcohol, n-butyl alcohol, sec-butyl alcohol, t-butyl alcohol, and mixtures thereof.

4. (Original) The method of claim 1 wherein the alcohol R^2OH comprises methanol.

5. (Original) The method of claim 1 wherein the aldehyde is an aliphatic aldehyde.

6. (Original) The method of claim 1 wherein the aldehyde is an aryl aldehyde.

7. (Original) The method of claim 1 wherein the aldehyde R^1CHO is piperonal.

8. (Original) The method of claim 1 wherein the desired diastereomer is the *cis*-diastereomer.

9. (Original) The method of claim 1 wherein the tryptophan is D-tryptophan.

10. (Original) The method of claim 1 wherein the desired diastereomer is *trans*-diastereomer.

11. (Original) The method of claim 1 wherein the solvent in step (b) is selected from the group consisting of an alcohol, an aromatic solvent, a nitrile, an ester, an ether, an aliphatic hydrocarbon, an organic acid, mixtures thereof, and aqueous solutions thereof.

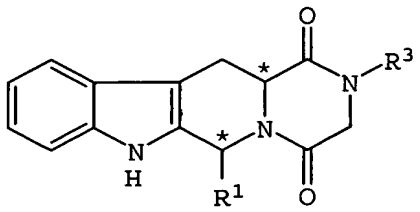
12. (Original) The method of claim 1 wherein the solvent in step (b) is selected from the group consisting of isopropyl alcohol, n-propanol, n-butanol, toluene, xylene, benzene, acetonitrile, propionitrile, acetic acid, ethyl acetate, tetrahydrofuran, methyl t-butyl ether, dioxane, mixtures thereof, and aqueous solutions thereof.

13. (Original) The method of claim 1 wherein the desired diastereomer is the *cis*-diastereomer, and the solvent of step (b) is an alcohol.

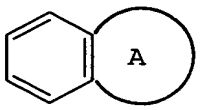
14. (Original) The method of claim 13 wherein the alcohol is selected from the group consisting of isopropyl alcohol, n-propyl alcohol, n-butanol, and sec-butyl alcohol.

15. (Original) The method of claim 13 wherein the alcohol is isopropyl alcohol.

16. (Currently amended) A method of preparing a compound having a formula



wherein R^1 represents an optionally substituted monocyclic aromatic ring selected from benzene, thiophene, furan, and pyridine, or an optionally substituted bicyclic ring



attached to the rest of the molecule via one of the benzene ring carbon atoms and wherein the fused ring A is a 5- or 6-membered ring which may be saturated or partially or fully unsaturated and comprises carbon atoms and optionally one or two heteroatoms elected from oxygen, sulfur, and nitrogen; and R^3 represents hydrogen or C_{1-6}alkyl, comprising the steps of:

(a) providing a desired diastereomer of a tetrahydro-β-carboline by the method of claim 1;

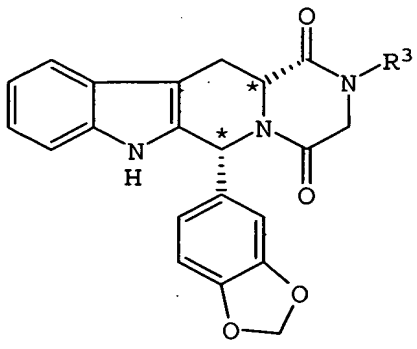
(b) reacting the tetrahydro-β-carboline with chloroacetyl chloride to provide an N-substituted tetrahydro-β-carboline; and

(c) reacting the N-substituted tetrahydro-β-carboline with an amine having a structure R^3NH_2, wherein R^3 is C_{1-6}alkyl or hydro, to provide the compound.

17. (Original) The method of claim 16 wherein the amine is selected from the group consisting of ammonia, methylamine, ethylamine, propylamine, isopropylamine, butyl amine, and sec-butyl amine.

18. (Original) The method of claim 15 wherein the amine is methylamine.

19. (Original) The method of claim 16 wherein the compound has a structure

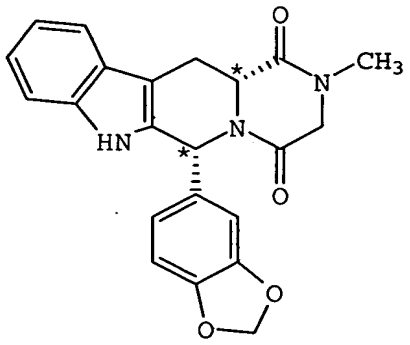


20. (Original) The method of claim 19 wherein R^3 is methyl.

21. (Original) The method of claim 19 wherein the compound is purified by recrystallization from glacial acetic acid.

22. (Currently amended) The method of claim ~~23~~ 16 wherein step (c) is performed in tetrahydrofuran, and wherein the tetrahydrofuran is removed and replaced with an alcohol for isolation and purification of the compound.

23. (Original) A method of preparing a compound having a structural formula:



comprising the steps of:

(a) esterifying D-tryptophan in methanol and thionyl chloride to provide D-tryptophan methyl ester hydrochloride;

(b) reacting the D-tryptophan methyl ester hydrochloride with piperonal in refluxing isopropyl alcohol to provide *cis*-1-(1,3-benzodioxol-5-yl)-2,3,4,9-tetrahydro-1H-pyrido[3,4-b]indole-3-carboxylic acid methyl ester;

(c) reacting the product of step (b) with chloroacetyl chloride and triethylamine to provide *cis*-1-(1,3-benzodioxo-5-yl)-2,3,4,9-tetrahydro-1H-pyrido[3,4-b]indole-3-carboxylic acid methyl ester; and

(d) reacting the product of step (c) with methylamine to provide the compound.

24. (New) The method of claim 23 wherein step (d) is performed in tetrahydrofuran, and wherein the tetrahydrofuran is removed and replaced with an alcohol for isolation and purification of the compound.